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ARTICLE I.—*A Case of Twins with Malpresentation.*

JULY 27th, 1855.—Called at 4 o'clock, A. M., to Mrs. Daily, a native of Ireland, aged 42 years—in her tenth confinement. Learned from the attending midwife that she had been in active labor since six o'clock of the former evening—a duration of ten hours; the pains still continued strong and severe. On examination, per vaginum, found the os uteri fully dilated, the walls of the vagina moist and yielding, but the presentation so complicated and novel, that I felt reluctant to hazard any diagnosis or further procedure without counsel, I therefore sent for Prof. Freer, who, on making an examination pronounced the presentation to be one in which two foetal heads occupied the right and left illiac fossæ respectively, with the right arm and prolapsed funis of the right child presenting intermediately. The accuracy of this diagnosis was fully confirmed by subsequent manipulations.

Our first aim was to correct the malposition of the head of the right child, and to place it in the most favorable relation to the diameters of the pelvis. The arm and funis were gently pushed

up and retained above the brim, until the malposition of the head, by means of the vectis and external abdominal manipulation, was corrected: but the tendency of the head to recede was so great that it was impossible to prevent its return into the iliac fossæ. The retention of the head at the brim for a sufficient length of time to admit of the application of the forceps was impracticable. Finally, version was agreed upon. A succession of attempts was made by both without success. The powerful contractions of the uterus which supervened on introducing the hand, the seeming multiplicity of extremities and the anomalous tortuosities of the cord, all tended to frustrate the explorations for the feet.

Prof. Blaney, was now sent for to share the fatigue and responsibility. In the meantime Prof. Freer, with praiseworthy perseverance made another attempt by which he succeeded in securing one extremity of the right child, at the flexor of the knee. But it was not until firm and long continued traction had been made that the arm and head receded and the foot was brought down. The first child was then delivered as in breech presentations,—the child still-born.

After the birth of the first child a sufficient amount of hemorrhage occurred to warrant the immediate introduction of the hand into the uterus, which detected an hour glass contraction, including the placenta, and second child above the point of contraction. The feet were immediately seized—version effected, and to avoid detail, delivery completed in a very short space of time. The child alive—but requiring artificial respiration for its resuscitation.

The placenta was removed without any unusual difficulty. It was a single placenta of large size, furnished with two sets of membranes. The size of the uterus was enormous and the abdomen pendulous. During the whole period of labor the patient retained her strength, notwithstanding the severity of the manipulations, and the almost continuous succession of the pains.—An excellent example of Irish tenacity of life.

At half past twelve, P. M., left her, ordered ergot lest hemorrhage should occur, the uterus not having contracted perfectly.

In the after treatment of this case there have been no symptoms differing from those observed in convalescence from natural labor.

The novelty of this case may be thus summed up, as consisting in the presentation of two foetal heads—an arm and a prolapsed funis, in the singleness of the placenta, and in the unusual contortions and intricate windings of the cord. To the above summary may be added the complications of an hour glass contraction and uterine hemorrhage.

ARTICLE II.—*Proceedings of the Cook County Medical Society.*
Large doses of Tinct. Opii., without any poisoning effects, &c.

THE Cook County Medical Society held its regular monthly meeting on the first Tuesday in September. A respectable number of members were present, and the meeting was both interesting and profitable. Edmund Andrews, A. M., M. D., was duly proposed and elected a permanent member of the Society. After the transaction of some other business of no general interest, the reading of reports and communications being called for, Dr. Paoli read a paper detailing an account of a case of labor and of monstrosity or imperfect foetal development.

The mother was attacked, shortly before the commencement of labor, with a pretty copious uterine hemorrhage, for the suppression of which she took two drachms of oil of turpentine, and had cold water applied over the pubes.

The hemorrhage soon ceased, but labor-pains subsequently came on, and expelled a foetus of six or seven months growth, but of very defective formation. Among other anomalies, the umbilical cord was detached from the foetus and the intestines were protruding from an apparent rupture in the abdominal walls. The only vestige of umbilical cord which could be found was a piece about two inches long attached to the placenta. The placenta, itself was much diseased throughout its whole extent; and in some places appeared to have undergone partial decomposition.

Dr. P., said the foetus had the appearance of having been dead from twenty-four to forty-eight hours before its expulsion, but he

thought the morbid condition of the placenta of much longer duration. Dr. Bevan reported verbally a case in which an unusual quantity of tincture of opium was taken without any severe effects. The patient was a man aged about thirty years, of intemperate habits, and evidently laboring under partial insanity at the time. On the 29th of August he procured two ounces of Tinct. Opii. for the purpose of killing himself.

In the evening he took one ounce of it; during the night half an ounce more, and in the morning of the 30th, he took the remaining half ounce. After waiting until 10 o'clock, A. M., without any serious effects, he went to a Drug-store near by, and procured four ounces more of the laudanum. He took one half of this (3ij) before 11 o'clock, A. M., and between three and four P. M., he took the remainder, except about 3½, which was left in the vial; and was presented to the Society for examination.

A few minutes after he took the last dose, he seemed to realize his condition, and hastened directly to Dr. Bevan's office, to whom he related what he had done. The doctor immediately administered an emetic, which operated freely. The matter ejected from the stomach, both in color and smell gave evidence of being strongly impregnated with laudanum. No marked sleepiness or other unpleasant symptoms followed, except a pain in the occipital region, and retention of urine. The latter made the use of the catheter necessary. On the first of September, he was able to patronize the dram-shops as usual, and became thoroughly intoxicated. There is, of course, no absolute certainty that the man took all the laudanum stated above; but the emptiness of his vials, and the fact (fully ascertained) that he had purchased the quantity named, all corroborated his own statement, and rendered it probable that he had actually taken the whole amount. Good judges pronounced the specimen of laudanum exhibited to be of good quality, and prepared in accordance with the directions of the United States Dispensatory.

Prof. A. B. Palmer, also related a case which came under his observation not long since. The patient was a Scotchman by birth, and had been much affected by domestic troubles, which he attempted to drown by drinking beer. Not succeeding in this he

attempted to kill himself with laudanum. For this purpose he purchased two ounces of laudanum and nearly a pint of whiskey; took them to his room, and in the evening, drank about half of the whisky and *all* the laudanum. He also took the same evening an ounce of a mixture of Tinct. Hyoscyamus, Tinct. Opii. and Tinct. of Camphor about equal parts, and went to bed. The next morning he was found in bed sleeping rather soundly, with face purplish or of a livid color. A physician was called, who attempted to give an emetic. But the patient aroused up and positively refused to take any medicine, saying that he knew what he wanted. Dr. Palmer saw him in the afternoon.

The pupil of the eye was strongly contracted, and the patient sleepy though easily roused. He drank freely of tea and coffee, and recovered without any vomiting or dangerous symptoms. He had retention of urine, however, and symptoms of delirium tremens for two or three days.

The question how far the co-incident use of alcoholic drinks and incipient insanity or delirium is capable of counteracting the effects of opium on the system, was discussed by members of the Society, but elicited no additional facts of importance.

The following case recently sent us by Dr. Dodson, has a bearing on the same question, and on that account, may be of interest to the reader.

ARTICLE III.—*A Case of Lunacy*—Ensuing neglect of treatment in the hands of a Homœopathist, successfully treated at Morris, Ill. By B. E. DODSON, M. D.

MRS. E., aged 38, was taken with bilious intermittent fever about the 11th of August—she sent for a Homœopathic doctor. She had at the time, her catamenal period. A few days after the commencement of treatment, a suppression of the discharge took place—a few days after which, a transition of the disease to the brain was manifest. That treatment was continued up to the 19th, during which time the lady was a raving maniac, sometimes contemplating the destruction of her children, &c. As the patient was fast sinking from continual incoherent talking, and the ravages of the disease, at the request of the Father of the patient, the

Homeopathic doctor was discharged, and I was called. August 19, 10 o'clock A. M., found the patient with pulse 140, skin cadaverous and cold, extremities cold, tongue coated with dark, brown, heavy coat, patient restless, very nervous—talking all the time, incessantly, and perfectly deranged, with obstinate constipation of the bowels. Administered sulp. morphine 4 grs., applied large blister to the back of the neck, and sinapisms to the hands and feet.

Evening visit found her a little more composed—gave sulp. of morphine 2 grs., ordered the nurse not to allow her to disturb the blister or mustard plasters, which she was disposed to tear off.

20th, 8 o'clock, A. M., patient still delirious, a maniac, had torn off blister and plasters, was perfectly uncontrollable (at this visit my father-in-law, Dr. Edwards, was with me), ordered the hair to be shaved off the head, re-applied blister, covered with tart. emetic, first rubbed the skin with oil of turpentine, tied the patient in straight jacket—gave 80 grs. of sub. murias hydrarg with sulph. morphine 3 grs.

Evening visit, no change, gave 60 grs. sub. murias hydrarg, with sulp. of morphine 2 grs.

21st, 8 o'clock, A. M., found patient in a moist sweat, pulse 130, more composed—ordered apperients, composed of salts and senna, and continued until the bowels move.

Evening visit, patient better, would answer some questions, bowels had been evacuated four or five times, skin and tongue moist, pulse 120, gave sulp. of morphine 2 grs., extract of belladonna, $\frac{1}{2}$ gr.

22d, 8 o'clock, P. M., patient improving, pulse 100, called for food, blister very sore and painful, poulticed the blistered surface; ordered gruel, and powders every four hours, composed of sub. murias hydrarg. 2 grs., sulp. of morphine $\frac{1}{2}$ gr., and continued belladonna in $\frac{1}{4}$ gr. doses, every four hours.

Continued above treatment three days, patient growing more composed and rational, (had taken off straight jacket on the morning of 22d), slight ptyalism induced, gave salts and senna, moved the bowels, gave a few doses of sulp. quinine and opium, during

the 25th, 26th, and 27th, and discharged the patient, August 28th, perfectly restored.

Now the question may be asked, why we would continue to give sulp. of morphine in four gr. doses, and 140 grs. sub. murias hydrarg within twelve hours, and continue morphine in two and three grs. doses, &c. In answer I will simply say, that I considered to save my patient from *permanent lunacy*, a prompt work had to be done; and that *potent remedies* were the means to be used; and further that I believed the absorbents to be about in the condition that I would expect to find them, in a *continued neglected* case of mania a potu, and I applied my remedies accordingly, and the sequel bears me witness that my diagnosis was correct.

ARTICLE IV.—*A Case of Inverted Uterus.*

WAS called to see Mrs. M., Tuesday evening, the 27th of last August, found a feeble attenuated female, about 30 years of age; upon enquiring as to the nature of her complaint, ascertained that she had been delivered of a living infant, the Saturday evening previous; that after delivery she had repeated fainting fits, with continuous excruciating pain in the lower part of the abdomen, the midwife declaring that she (the patient) was about having another baby, as she had felt and continued to feel its head in the passage.

This history, of course, incited an examination of the vagina, sure enough there was something there filling the passage, and corresponding in size to the head of a foetus, but the tumor was bleeding, and not quite so hard as a foetal head; no fontanella could be felt, neither could any os uteri be discovered. The mid-wife stated that she found this condition after she had taken, or in the act of taking the afterbirth, and then thought it was the patient's stomach coming down, she positively denied having made any traction on the cord.

Upon passing the tumor upwards in the axis of the pelvis, there was a perfect cataract of warm fluid, flowing over the hand, and

deluging the bed, evidently the contents of a distended bladder. Handling the tumor, and any degree of pressure upon it called forth piteous exclamations from the poor woman. The pulse of the patient was rapid and feeble, the countenance expressive of great anguish. Examination of the hypogastric region gave no indication of the presence of a post partum uterus, generally so prominent in that region after recent parturition.

A consultation was immediately demanded after unsuccessful efforts to reduce the tumor, intimating at the same time to the friends, the nature of the case, and the woman's critical condition, they requested me to do all that could be done. I therefore went in pursuit of professional aid, after putting a bottle of chloroform in my pocket, determining not to forestal the medical opinion of the gentleman, by any intimation of the nature of the case, merely stating it as an obstetrical case. "What is the matter here?" quoth the Dr. "Matter enough yer honor, the lassie has had a bit of a babe last Saturday, and now there is another one, but it will not come at all at all," replied the old Granny. Then she has had a child, I thought *that* was the difficulty. Will you examine the vagina Dr. An inverted uterus! exclaims the Dr., yes I replied total inversion, this he affirmed with the remark, that there was only one remedy, viz., reduction. Have you chloroform? I have: After fully acquainting her friends with her perilous condition, and giving her an opportunity of being shrived by the priest, we got her fully under the influence of chloroform; but after every manipulation that was thought of had been resorted to, we failed to reduce it. It continued hard, and unyielding; grasping the tumor in the hand, (as far as its bulk would allow), and by this means squeezing the blood out, signally failed also, so that much to our regret, we had to abandon all further efforts at reduction, and only hoped that what we failed to do might be accomplished by some effort of nature.

Wednesday morning, the woman says that she is free from pain, pulse rapid, skin hot, slept some during the night, incontinence of urine, tumor in *statu quo*, still bleeding, no appetite, ordered wine and beef tea.

Thursday, much the same, excepting skin not so hot, tongue clean, incontinence of urine continues, tumor has ceased to bleed, no appetite, to continue diet as above.

Friday, more feeble, and emaciated, looks wild, says she has no pain, other appearances the same. Sunday morning, is delirious, can hardly be kept in bed, talking incessantly, tender abdomen, hot skin, in fact fever has set in, will not take nourishment, nothing but water.

Monday, is sinking into a typhoid condition, is so violent, as to be almost unmanageable, indifferent attention to her, the nurse and friends afraid of her, my directions so indifferently attended to, that I ceased to visit,—she died the following Monday.

The friends were averse to a *post mortem*, I suppose, for they promised to advise me of her death, with this view—but which I did not ascertain until after her burial.

Remarks.—It is much to be regretted that so much antipathy exists against *post mortems*, by the community generally; this case would have been doubly interesting, if the condition of the parts had been declared by actual inspection. I am fully satisfied in my own mind, that it was complete inversion, though my friend, upon hunting up authorities, thinks, that to have been total inversion, the tumor would have projected beyond the vulva. But if it had been only partial, the efforts that we made would no doubt have restored it, and besides in partial inversion, the os uteri ought to have been discovered grasping some part of the inversion. Also upon pressing up the tumor in the vagina, and then by counter pressure upon the abdominal walls, a distinctly defined ring, or indenture about an inch and a half in diameter, could be detected through the abdominal walls.

The tumor in the vagina was slightly smaller at its upper part, but too large even there to be grasped fully by the hand, and did not terminate in a constricted part, but lost itself in the walls of the vagina; the lower part was just within the vulva.

HENRY RITCHIE.

ARTICLE V.—*The Lake Superior Region Favorable to Health and Longevity.* By W. B. HERRICK, M. D.

IN order to arrive at correct conclusions upon the influence of the climate of any region upon health, it is all important that certain Meteorological phenomena, such as the temperature and barometrical changes, the humidity, density, purity, and other conditions of the atmosphere be closely and accurately observed; and, that the separate and combined influences in modifying vital action, both in health and disease be thoroughly investigated and determined.

A comparison of the following observations made at Fort Wilkins, Keweenaw Point, on Lake Superior, and at Fort Snelling, on the Mississippi, shows, most conclusively, how great are the modifying influences of the large bodies of water in the region of Lake Superior, in tempering its climate :

| | Latitude. | Mean Temperature. | Winter. | Summer. |
|---------------------------|-----------|-------------------|---------|---------|
| Fort Wilkins, | 47°30' | 41°46' | 24°83' | 58°61' |
| Fort Snelling, | 44°53' | 44°8' | 16°8' | 71°06' |
| Extremes at Fort Wilkins, | | | 9°— | 93° |
| " " Snelling, | | | 23°— | 115° |

By the above table it will be seen that at Fort Wilkins on Lake Superior, nearly three degrees north of Fort Snelling on the Mississippi, the mean temperature is nearly the same, but, that it is 8° 53' colder in winter and 13° 9' warmer in summer on the banks of the Mississippi than on the borders of Lake Superior, and that at Fort Wilkins the thermometer did not at any one time fall lower in winter than 9° below, or rise higher in summer than 93° above; yet at Fort Snelling, it ranged from 23° below in winter, to 115° above zero in summer.

This remarkable difference in the range of the thermometer at two points, nearly in the same latitude, and about the same distance from the coast of the Atlantic, is produced by several causes, the most important of which is, doubtless, that resulting from the fact that but few, if any, bodies of water exist to modify the temperature of the atmosphere of the vast prairies bordering upon and extending hundreds of miles in every direction from the Mississippi, whilst on the contrary, numerous and vast bodies of

fresh water abound everywhere in, and surround in every direction the Lake Superior region, cooling the atmosphere by contact, and the absorption of heat by evaporation in summer, and warming it in winter by the liberation of latent heat, during the congelation of vapor and water to form vast bodies of snow and ice. Another reason, not referred to before by writers so far as we know, modifying the temperature of this region, results, doubtless, from the fact, that in the line extending from Lake Superior to the Pacific, nearly in the course of Stevens' Survey, there are but slight if any mountain barriers, to obstruct the free passage of atmospheric currents from the equable and congenial climate of Washington Territory.

Barometric changes as well as those of temperature, influence doubtless the vital functions of animals, to such an extent at least, as to require to be taken into consideration in all investigations regarding the influence of climate upon health. We are not able at this time to avail ourselves of statistics, if any exist, by which to show variations in the pressure of the atmosphere in this region; yet there are certain curious phenomena presented in the sudden rise and fall of water in our lakes, and especially in Lake Superior; which to my mind can be most rationally explained, by supposing that they are the result of varying amounts of atmospheric pressure, acting upon their surfaces at varied times and in different localities.

Concerning these remarkable phenomena, Messrs. Foster and Whitney, in their geological report, published in 1850, make the following remarks :

"Lake Superior possesses all of the sublimity of the ocean. In gazing on its surface, whether stretched out like a vast mirror, reflecting the varying tints of the sky, or ruffled by gently curling waves, or lashed by the fury of the storm, the beholder is alike impressed with a feeling of the grand and the infinite. During a residence of several summers on its borders, our attention has been directed to the fluctuations in the level of its waters; and, while we have failed to detect any ebb and flow corresponding with the tidal action, we have, on the other hand, noticed certain extraordinary swells which appear to be independent of the action of the sun and moon.

"These risings attracted the attention of the earliest voyagers,

and they have not failed to record their observations with a minuteness worthy of commendation.

" In the Relation for 1670-71, Dablon uses the following language: 'As to the tides, it is difficult to lay down any correct rule. At one time we have found the motion of the waters to be regular, and at others extremely fluctuating. We have noticed, however, that at full moon and new moon the tides change once a day for eight or ten days, while, during the remaining time, there is hardly any change perceptible. Three things are remarkable: first, that the currents set almost constantly in one direction, viz: towards lake Michigan, which does not prevent their ordinary rise and fall; second, that they almost invariably set *against* the wind—sometimes with as much force as the tides at Quebec—and we have seen ice moving *against* the wind as fast as boats under full sail; third, that among these currents we have discovered the emission of a quantity of water which seems to spring up from the bottom ! ' "

Dablon, the writer last quoted, attempts to account in part for these changes by assuming that there are underground passages leading from Lake Superior to the lower lakes. Such a supposition, which, for various reasons, the writer considers untenable, would favor the theory that these changes are produced in whole, or in part, by varying weight of the atmosphere at different times and localities.

The following quotation from the work referred to above, is, as it seems to the writer, nearly conclusive in the support of this view:

" Professor Mather, who observed the barometer at Copper Harbor during the prevalence of one of these fluctuations, has published the results of his observations. He remarks: 'As a general thing, fluctuations in the barometer accompanied the fluctuations in the level of the water; but sometimes the water level varied rapidly in the harbor, while no such variations occurred in the barometer at the place of observation. The variations in the level of the water may be caused by varied barometric pressure of the air on the water, either at the place of observation or at some distant points. A local increased pressure of the atmosphere at the place of observation would lower the water level where there is a wide expanse of water, or a diminished pressure under the same circumstances would cause the water to rise above its usual level.' "

Admitting the correctness of this view, and it would require

but a few observations made with the proper instruments on the shores of this or any other lake to test its truth or fallacy, and we have the reciprocal action of the water below upon the atmosphere above, acting in such a manner as to modify the pressure of the atmosphere, making it greater or less according as the water is higher or lower; thus making the action of the lakes in this region important agents to modify barometric pressure as well as temperature; and, additional contributors to health and longevity, by preventing, measurably, those excessive barometric changes so detrimental to life and health.

The hydrometric condition of the atmosphere of this Lake Superior region, is so far as we know, a subject still waiting for and requiring investigation, hence we will state briefly what are some of its geographical and geological features, which must, in conformity with well known natural laws, have the greatest influence in modifying the hydrometric condition of the atmosphere. The numerous bodies of water which surround Lake Superior in every direction, added to its own broad expanse, present an evaporating surface to the sun and air, such as must facilitate to a remarkable degree the accumulation of watery vapor in the atmosphere of this region, yet there are good reasons for believing, as seems to be the general impression of the inhabitants here, that extremes of humidity as well as dryness seldom, if ever, occur. Among the most important modifying influences affecting atmospheric humidity is, doubtless, the character of the country bordering upon the coast. Upon this subject Prof. Agassiz remarks as follows:

"The general shape of Lake Superior is that of a crescent. But it would be a great mistake to suppose it bounded by curved lines. Its shores are combinations of successive sets of straight parallel lines, determined in each instance by a peculiar system of trap-dykes. These dykes have five general directions, and the outlines of the shores are determined by their combinations."

The mountains and highlands of this region are not elevated to a height sufficient to lower to any great extent the temperature of the atmosphere passing over them, yet their broken and irregular outlines as well as the angularity of their junction one with another constitute numerous projecting barriers imperfectly separ-

ated by corresponding depressions, by which all atmospheric currents are broken up and changed in their direction to such an extent that the unfortunate coaster frequently finds himself suddenly checked in his own onward course, and his sail flapping between two atmospheric currents, coming from opposite points of the compass, or what is less common, perhaps he finds himself suddenly drenched by rain or enveloped in fog resulting from the sudden condensation of watery vapor, previously suspended in one or the other of two atmospheric currents, uncongenial both in humidity and temperature, which have suddenly and unexpectedly met, in their passage to and from different elevations of old Superior's castle-walled and terraced coast. In view of the facts here presented, it is evident that in an atmosphere in which the currents are so varied and unlike in direction, temperature and humidity, no great excess of watery vapor can be accumulated or remain suspended for any length of time, without being affected by one or the other of these numerous condensing causes.

Another influence which is very efficient, doubtless, as a preventive to the excessive accumulation of watery vapor in the atmosphere of this region, is the remarkably low temperature of the water of the lake. An accurate and careful experimenter states that he found the temperature of the water of Lake Superior, during the summer, a fathom or two below the surface, but a few degrees above the freezing point.

This low temperature of the water has an important influence upon the atmosphere both in directing its current and modifying its humidity. A well known atmospheric phenomena of this region, is the land breeze, caused doubtless by difference of temperature in the atmosphere over the water and upon the surrounding highlands, by which an almost constantly recurring nightly current is produced of the more dense air of the mountains, towards that which is comparatively rare covering the lake.

With regard to the purity of the Lake Superior atmosphere, it may be stated in brief, that the sources from which the deleterious gases of regions less favored in this respect, originate, do not exist in this region.

Its geological formations being as they are for the most part

primitive; and the comparatively low temperature of the atmosphere, are circumstances which preclude the possibility of a generation of gases from decomposing organic or other matter sufficient to change it in any perceptible degree from its normal constitution.

Its purity is also manifest in its invigorating effects upon man and other animals; as also in its remarkable transparency, manifested in the extent of the field of vision, and the softened translucence of a Lake Superior sky.

The above facts being such only, as a recently inhabited country affords, are necessarily few in number, and imperfectly classified, yet the writer believes they are sufficient to justify the following conclusions, in regard to the temperature, humidity and purity of the atmosphere of this country. First, as regards temperature, it is evident that the average amount of cold during the year, and the extremes of heat in summer, and of cold in winter, are less, than in any other region in this country, east of the Rocky Mountains; in the same latitude either east or west.

Secondly, the facts and circumstances which have been mentioned, as having the most influence in determining the amount of pressure exerted by the atmosphere at different times and places, are such as to indicate that barometric changes are never excessive.

Thirdly, it is evident that the vast bodies of water in this region, furnish such a widely extended evaporating surface, as to favor a suspension, in the atmosphere of an excess of watery vapor; yet the causes which have a tendency to produce condensation, are so varied and numerous as to effectually prevent frequent or long continued excessive humidity.

In conclusion, we will simply state, that it must be apparent to all, that no causes favorable to the production of impurities in the atmosphere of this region exist, therefore no argument is required upon this point.

The inevitable conclusions to be drawn from the facts and reasons thus briefly and hastily adduced, are that the region of Lake Superior is one highly favorable to the preservation of health and long continuance of life; being as it is, well adapted, both geogra-

phically and geologically to the preservation if not to generation of animals; and having as it has, a pure atmosphere, in which the thermometrical, barometrical, and hydrometrical changes are never excessive.

S E L E C T I O N S .

Observations on Scarlatina. By HENRY TWEEDY, M. D., &c.

There is no lack at present of able and useful contributions to our medical and surgical literature, but all must admit that it is of the first importance that practical men (many of whom have neither time nor taste for writing learned and lengthened essays) should be encouraged in every possible way to write as briefly and as plainly as they please upon points of practice not generally adopted, and the correctness of which has been proved in perhaps hundreds of unpublished cases.

The following observations upon scarlatina shall be confined to three points of practice:—

1ST. EARLY PURGATIVES.

2D. COLD DRINKS.

3D. THE APPLICATION OF NITRATE OF SILVER.

I have had extensive opportunity of witnessing and treating eruptive diseases when on different occasions they severally assumed the form of an epidemic in Dublin. Of scarlatina, which is justly considered the most formidable, I do in truth declare that, to the best of my belief, not a single case, for the last ten years, proved fatal of those which I had seen within twenty-four hours of the commencement of the attack, and which had not previously been put under treatment. Humanly speaking, the cause of such success has been that I have long held in deep abhorrence an *early* aperient in *any* form of eruptive disease. I state it advisedly as my opinion, and one not hastily formed, that a smart purgative draught is in itself sufficient to convert a case of mild scarlatina into a malignant, and, in all probability, a fatal one. To my mind it is not difficult to assign a reason as to how and why this should be so.

The primary stage of every disease, whether medical or surgical, is inflammatory, and this supposes the diminution—in some instances, the almost entire suspension—of all the secretions. The mucous membranes, which in health are always moist, become in the early stage of fever, and more especially the eruptive fevers, dry, rough, and parched. An irritating purgative which, in hun-

dreds of cases, forms the groundwork of the treatment, increases considerably this state of things, and therefore should by all means be avoided; whereas medicines which tend to relieve the skin, subdue the fever, and restore the secretions, will, in almost every instance, cause the bowels to act freely and naturally—Should such fail to be the case, a mild aperient, about the conclusion of the third day, will seldom fail in accomplishing all the indications required.

I consider this point one of great practical importance, involving the lives of many of our fellow-creatures I have for years felt it my duty to warn parents, guardians, and proprietors of schools, &c., against the objectionable and most dangerous practice so often adopted, of giving aperient medicines during the prevalence of an epidemic. They have, to say the least of them, in numerous cases, done irreparable harm, lessening considerably, if not altogether destroying, all hopes of a good and complete recovery.

I cannot say that in one solitary case for the last ten years I ever ordered a particle of aperient medicine before the eruption was not only fully and fairly established, but further, beginning to decline; and I do positively assert that I never had cause to regret it. The bowels have, in many cases, been most satisfactorily relieved by medicines given with a totally different object, and in all the patients did well.

The medicine of all others on which I rely most, and the efficacy of which, in many diseases, is so far greater than is generally known, is ipecacuanha. For a strong robust child of 10 or 12 years of age, I should order the following mixture:—

R Aq. distil. 3vii.
Pulv. ipecac. gr. vi.
Syrupi croci 3j. M.

One tablespoonful to be taken every second hour. The dose of the medicine should be increased or diminished in proportion to the age of the patient and the effect produced.

COLD DRINKS.

In connection with eruptive and inflammatory fevers generally, it may be well to mention that the objection entertained by many to cold water as a drink, is, in my opinion, wholly untenable. I cannot possibly say in how many cases of scarlatina, measles, and other eruptive diseases, whether in adult or child, I have given the attendants full permission to give the patients cold water to any extent desired by them. Suffice it to say, that for the last ten years it has been, with perhaps one or two exceptions, my invariable rule. I am thankful to say, that not a solitary case has occurred which caused me to regret it. On the contrary, it has always proved not only a safe, but, in my opinion, the most use-

ful, and certainly the most agreeable drink I could possibly employ.

While strongly advocating the propriety of giving patients as much cold water as they could possibly desire during the inflammatory stage of fever, I am not to be supposed to say that I should *order* every (or any) patient to drink quantities of this fluid against his will: quite the contrary. There are to be found some, especially in the upper ranks of life (I do not think I ever saw one in the lower), who, whether in sickness or in health, have an intolerable aversion to cold water as a drink. I have before my mind the name of some such, who have repeatedly acknowledged to me that never in their lives did they drink one glass of plain cold water at a time. With such I did not press the remedy, and each did well taking large quantities of warm drinks to assuage their intolerable thirst.

As there are physicians favorable to early purgatives, so there are those hostile to cold drinks in the first stage of eruptive fevers. My observation of the effects of both remedies in a large number of cases has led to the following conclusions:—

1st. A case may occur in which a purgative might be called for as the foundation of treatment in early fever, but I must ever maintain that such case is the exception, and not the rule.

2d. Cases may and do occur, in which early purgatives in fever do no apparent mischief; on the contrary, the patients progress satisfactorily.

3d. Constant observation forces upon me the conviction, that most serious consequences are produced by purgatives in the early stage of eruptive disease, eventuating in the most startling results, which, in my opinion, might have been avoided by other and milder treatment.

4th. The choice of warm whey, &c., or cold water, may safely be left with the patient. In nineteen cases out of twenty, the latter will be preferred. Gratifying the patient in the matter has never disappointed me.

NITRATE OF SILVER.

The third consideration with reference to scarlatina, which I desire briefly to advert to, is the application of Nitrate of Silver to the Fauces.

I believe no physician doubts the efficacy of this remedy, but certain I am that many practitioners might nearly, if not altogether, as well neglect this most useful and powerful agent, as use it as they do. There are many who never apply nitrate of silver to the throat in any other way than by means of a camel's hair pencil. Now nothing could shake me in my conviction, that hundreds of cases of scarlatina have proved fatal from this cause alone. I have seen ulcerated sore throats, as severe as perhaps

any which the records of medicine can afford, and which had brought the patients suffering from them to the very confines of the grave. Had I nothing better at hand than a camel's-hair pencil for applying a caustic solution, to a moral certainly they would all have terminated fatally.

The right mode in my judgement, for employing this great (I might almost say only) remedy in this extreme case, in which life is all but extinct, is to get a long probe, round which should be rolled a piece of lint. This should be allowed to stand for about one minute in a twenty-grain solution of nitrate of silver. A spatula or spoon having been placed on the tongue to depress it, the probe should be passed low down into the throat, the interior of which should be cleverly rubbed all round. Those who have practised this in the way described have had their hearts gladdened by the wondrous change in a moment produced. A sponge attached to a rod of whalebone has been used and recommended by many. This, though infinitely preferable to a camel's-hair pencil, is open to objection :—1st. The same sponge should not be used (though I have seen it done) for more than one patient, and we often meet with two, three, or even more at the same time, and in the same house. 2d. There is a difficulty in having the sponge kept clean. 3d. The sponge is ten times more disagreeable to the patient; and lastly, it does not answer the purpose so well.

I know of no disease, the recoveries from which have astonished and rejoiced me so much as scarlatina. No case should be despaired of, or left without the most vigilant care, until life became wholly and unmistakably extinct. I feel perfectly satisfied that there are many practitioners who have reason (upon a review of past experience of this disease above all others) bitterly to regret the course they pursued.—Like croup, it runs through its stages quickly. To neglect the proper treatment, and that at the right moment, or to employ injurious means, is an error never to be remedied.

Some time since I was attending a fine boy, aged seven years, in Mountjoy-square. He labored under malignant scarlatina. The case was one demanding the utmost care and attention, it being as unpromising—I might perhaps say as hopeless—a case as any I had ever seen. Having had occasion to pass the house at a very late hour of the night, I paid my little patient an unexpected visit. The person who opened the hall-door announced to me her belief that the child was dead. On entering the room I beheld the mournful sight of a fond father with what he considered to be his dead son lying in his lap. The scene was one not soon to be forgotten. On a very close examination, I could clearly perceive that the child was still alive, but no more. One drop of fluid he

could not swallow, and his respiration was almost imperceptible. I instantly applied the nitrate of silver in the manner I have described; not, I must say, with much, (if any) expectation of success. The effect was literally miraculous. An immense quantity of mucus and lymph adhered to the lint; he immediately breathed freely, before I left the house drank cold water, and in the providence of God made a quick and complete recovery.

This is a case of peculiar interest, pointing out distinctly two important points—viz., 1st. The extreme value of nitrate of silver when properly applied. 2d. The physician's duty in never turning his back upon his patients, and saying no more can be done, so long as the smallest appearance of life remains.

A short time since I attended a family in North Richmond street, who have suffered severely from scarlatina. The mother took the disease from her children, four or five of whom were ill together. With the exception of one, the cases, though far from being mild, were not alarmingly severe. In the eldest, a handsome girl, about 11 years of age, the disease assumed a malignant type. On the night of the fourth or fifth day, I was sent for in great haste, and was informed by the messenger that my patient was dying. On entering the room I had good reason for fearing that what I had heard was but too true. Her face was absolutely purple; her respiration so painfully difficult that she required to be propped up with pillows in her bed; an intelligible word she could not utter, and swallowing was quite out of the question. I lost not a moment in applying the caustic solution, as in the last case mentioned, and with similar and equally happy results. Her recovery was everything that could be desired, and she is now I am thankful to say, a healthy young lady, full of life and spirits.

I do not presume to say that the man who adopts the foregoing treatment must necessarily succeed in every or in any case; but this much I must say, that in my experience it has proved successful, and I confidently believe that none who adhere to it will have reason to regret it.—*Dublin Medical Press.*

Lecture on Materia Medica. Given at the Royal College of Physicians. By H. BENCE JONES, M. D., F. R. S., Physician to St. George's Hospital.

ON DIGITALIS.

It is my intention to-day to take as my subject the effects of Digitalis, partly on account of the interest which its medicinal action possesses, partly because some accurate experiments have lately been made in Germany and in France on the use of this

medicine, which, so far as I know, have not been made known here.

This volume of the *Archives de Physiologie*, edited by M. Bouchardat, containing the memoir of MM. Homolle and Quenenne on Digitaline and Digitalis, might alone have furnished me with the materials for this lecture; I shall, however, bring before you not only the most important facts determined by these investigators; but I shall first relate to you some remarkable results obtained by Dr. Traube of Berlin, respecting the action of digitalis on some animals.

The experiments of Dr. Traube were chiefly made on dogs. The infusion of digitalis which he used was prepared by pouring four ounces of boiling water on two drachms of digitalis leaves; the infusion was carefully filtered, and was raised to the temperature of the body before it was injected into the veins by a syringe which held 130 grains of spring water. Thus each syringe-full of the infusion digitalis would contain the extract from about eight grains of digitalis leaves. The infusion was injected into the jugular vein towards the heart.

A strong dog had, first, a syringe-full of warm salt and water injected into the vein. The pulse was slightly accelerated; then a syringe-full of infusion of digitalis was injected, and in one minute the pulse fell 108 pulsations. In ten minutes, on the pulse rising, two thirds of a syringe-full more were injected, and the pulse fell 28 beats. This was again repeated; after the fifth syringe-full the pulse rose above what it was previous to the commencement of the experiment.

The details of the experiment may be thus given:—

| | A. M. | |
|---------------------------------|-------|-----------------|
| The injecting tube was fixed at | 7.56. | Then pulse, 128 |
| Warm salt and water injected | 8.16. | " 128 |
| 1st syringe-full of digitalis | 8.34. | " 182 |
| " | 8.35. | " 24 |
| 2d syringe, two-thirds full | 8.46. | " 84 |
| " | 8.48. | " 56 |
| 3d syringe, one and half full | 8.54. | " 84 |
| " | 8.55. | " 36 |
| 4th syringe-full, - - - - | 8.57. | " 32 |
| 5th syringe-full, - - - - | 9.01. | " |
| " | 9.04. | " 160 |
| " | 9.07. | " 174 |

At 9.17 dog was bled to death.

In this experiment the effect of increasing the quantity of digitalis are very remarkable.

In another experiment, the same fact is thus made evident:

At first the pulse was 108. With two and one-third syringes-

full the pulse fell to 33. With two-thirds of a syringe-full more, the pulse rose to 202.

In a third experiment, the pulse before injection was 132 : after three-syringes-full, it was 46 ; after four syringes-full were injected, it was 192 ; after five syringes-full, it rose to 204.

The fourth experiment gave the same result.

In the fifth, the pulse before injection was 128 ; after a syringe and a-half was injected, the pulse fell to 72 ; after nearly four syringes-full, the pulse rose to 100 ; after five syringes-full, the pulse reached 216. The dog lived eleven hours afterwards. Two other experiments all agreed in showing that the first action of small quantities of digitalis injected into the blood was to reduce the pulsation of the heart ; but that, when the quantity of digitalis was increased, the pulsations of the heart became greatly accelerated.

Having determined this action of digitalis, Dr. Traube then endeavored to satisfy himself whether this effect on the pulse depended on the action of the digitalis on the heart directly, or on the heart through the pneumogastric nerves. One series of experiments was made, in which the pneumogastric nerves were divided after the digitalis was injected, and, in another series, the pneumogastrica were divided before the injection of the infusion.

The first of these series consisted of seven experiments. The following may be taken to illustrate the effects :—

When the pulse was reduced by the action of the injection of the infusion, first one, and then the other pneumogastric nerve was divided ; and the results are thus stated :—

| | | | | |
|--|-----|---|----------|--|
| The pulse before the injection of the infusion was | 72 | | | |
| “ after | “ | “ | 44 to 52 | |
| Immediately, on sect. of left vagus, pulse rose to | 92 | | | |
| “ “ right “ “ | 204 | | | |

In another experiment :

Before the injection of the infusion, at 2.8 p. m., the pulse was 121

| | | | |
|--|------|---|----|
| After $\frac{2}{3}$ of syringe-full at | 2.11 | “ | 88 |
| “ “ | 2.14 | “ | 50 |
| “ “ | 2.16 | “ | 48 |
| “ “ | 2.17 | “ | 48 |

| | | | |
|----------------------------|------|---|----|
| The right vagus was cut at | 2.19 | “ | |
| “ “ | 2.21 | “ | 66 |

| | | | |
|---------------------------|------|---|-----|
| The left vagus was cut at | 2.27 | “ | 204 |
|---------------------------|------|---|-----|

The same result was obtained by dividing both pneumogastric nerves at the same time. In all the seven experiments, after the pulse was reduced by the action of digitalis, division of the vagi caused rapid acceleration of the heart's action.

When the pneumogastric nerves were divided, previously to the

injection of the infusion of digitalis, the reduction of the pulse was no longer observable.

The following experiments illustrate the results which were then obtained :—

| | P. M. |
|-------------------------------------|----------------------|
| Both pneumogastrics were divided at | 3.56 Pulse was 180 |
| Half a syringe-full was injected | 4. 8 " 168 |
| Another half " | 4.16 " 162 |
| One-third syringe-full " | 4.23 " 152 |
| Half a syringe-full " | 4.32 " 160 |
| Half a syringe-full " | 4.41 " 180 |
| Half a syringe-full " | 4.49 " 180 |

Twelve experiments gave the same results. Here is the last. Before injection, after division of vagi. Pulse was 180.

Two syringes-full at 9.15 A. M.

| | |
|---|--|
| " | 9.17 " Pulse was 144 |
| " | 9.19 " 126 sys. mur. |
| " | 9.20 very loud systolic murmur. Second sound wanting. |

After four more syringes-full. Pulse 144.

It follows, from the first series of these experiments, that digitalis, in small quantity, reduces the action of the heart; in large quantity, greatly accelerates it.

It follows, from the second series of these experiments, that when the digitalis has reduced the pulse, division of the vagi will immediately insure acceleration.

It follows from the third series of these experiments, that when the vagi are divided, digitalis is not observed to produce slowness of the pulse.

In the interpretation of these results, two fundamental observations by other physiologists must be here mentioned.

E. Weber has shown that, when the vagi are undivided, a feeble electric current acting on the medulla oblongata or on the vagi, causes a diminution of the contractions of the heart.

Ludwig has proved that, in all mammalia, section of the vagi in the neck is immediately followed by increased frequency of the heart's action.

We must recognize in the heart two systems of nerves :—

1st. Musculo-motor, causing contraction.

2nd. Regulator system.

The ganglia of the heart are the centre of the 1st system, and the medulla oblongata is the centre of the 2nd system. The regulating nerves pass with the vagi. From the experiments of Weber and Ludwig, it follows, 1st. That abnormal gentle stimulus of the regulator-nerves diminishes the frequency of the heart's action,

and 2ndly. That the frequency is greatly increased by the removal of the regulating action.

From this it may be concluded, that any substance which, when brought into circulation in small quantity, diminishes the frequency of contraction, but, in large quantity, increases the frequency, acts on the regulator-nerves. Hence digitalis, from Dr. Traube's experiments, 1st. Stimulates the regulator system of nerves; 2ndly. Paralyzes the regulators; and when it stops the action of the heart, then, 3rdly. It paralyzes the musculo-motor system.

In small doses, the digitalis acts as a stimulant; in large doses, it acts as a sedative paralysis and death. Though it is by no means safe to deduce the action of any medicine on man from the effect of the same medicine on animals, as indeed the action, or rather the absence of action, of this very substance (digitalis) on rabbits well proves. Yet the phenomena produced by large doses of digitalis on man so closely resemble those produced on dogs by injection, that it may safely be assumed, that in man digitalis acts on the nerves that regulate the heart's action, first as a stimulant, and in large doses as a sedative. I will pass on, therefore, now to the consideration of digitalis as a medicine. The uncertainty of the action of remedies is often rightly attributed to variations in their composition. In all vegetable medicines, used as they are grown, this is most likely to occur. And no certainty regarding the mode of action of any vegetable medicines can be obtained until the active substances are separated and made the subject of careful experiment. I might take opium and bark to illustrate my remarks. We do not, indeed, as yet perfectly understand the mode of action of morphine and quinine, but by separating these substances, it has become possible for us to determine how opium and bark act on the system; and in the use of these medicines we can get more constant effects by more constantly using exactly the same remedy. So also, if we can get the active principle of digitalis, we shall not only advance on the way to the knowledge of the mode of action of digitalis, but we shall get rid of causes interfering in the action of this substance as a remedy; for example, the age of the plant, the year, the cultivation of the plant, the desiccation of the leaves, &c.

M. M. Homolle and Quevenne, to whom we are indebted for this important work on digitalis, state that they have separated fourteen different substances from the leaves of the plant; as the amount of each of these substances present in the plant is never constantly the same, it is evident that much more certainty will be obtained by insulating the one active substance, than by using fourteen substances in various quantities.

The different substances found by the French chemists may be thus enumerated: starch, sugar, pectin, albuminous matter,

orange-red crystallizable coloring matter, chlorophyle, volatile oil, tannic acid, digitalic acid, anterrhinic acid, digitalic, and three neutral principles, digitalose, digitalide and digitaline.

This last substance is the most active ingredient of the digitalis. It is prepared pure by extracting the neutral principles with ether and alcohol, of specific gravity 780. This dissolves the digitaline and the digitalose, the etherial solution is then evaporated, the residue treated with alcohol, again evaporated, and treated with weak alcohol, the digitaline remains dissolved. On gentle evaporation, it does not crystallize, but forms a resinous-looking mass of a pale yellow color, unchangeable in the air, and very bitter, slightly soluble in water, very soluble in alcohol. It is a neutral substance. It becomes emerald-green with strong hydrochloric acid. The best test of its quality is its bitterness. This is best determined by taking one centigramme of the powder of digitaline, and dissolving it in two grammes of alcohol, and continuing to dilute this solution with water until the bitterness is found to disappear. From the quantity of water required, the goodness of the digitaline may be estimated; if the digitaline be good, more than three pints of water will be required to be added before the bitterness becomes imperceptible.

The best form for keeping and giving the digitaline as medicine is in granules and not tincture. Thus it keeps best, and is more certain, in composition. It is thus most easily given, as its bitter taste is concealed. Each granule is made to contain one milligramme. This is equal to .015 grain of digitaline. Here are the granules as prepared by M. Homolle, and here are some prepared by Mr. Morson, each granule containing the hundredth part of a grain of digitaline. I have used both these preparations in all kinds of diseases in St. George's Hospital, and I can find no difference in their action.

MM. Homolle and Quevenne state that one of them took four of these granules daily for eight days. The average healthy pulse of the person experimented on was 67.5; after taking the granules the pulse fell to 50. The difference is 17.5 beats, which are equal to one quarter the beats of the heart. Two dogs were given from 2 to 11 granules daily. In the first dog the pulse fell from 60 to 51. In the second, from 87 to 70.

The comparison between the digitaline and digitalis is so remarkable that I have copied it in this table.

Digitaline.

Digitalis.

| | |
|---|---|
| 1st. Type unalterable; to this all digitaline may be reduced. | 1st. No standard of comparison. |
| 2nd. Constant action. | 2nd. Uncertain action; depends on the quality of the plant. |

3rd. Possibility of determining comparative excellence by the bitterness.

3rd. No mode of determining the quality of different specimens.

4th. Agreeable form.

4th. Disagreeable smell and odor.

M. Bouillaud states that during four or five years, not a day has passed without his employing digitaline on many patients with diseases of the heart or vessels. He has given it to from 150 to 200 patients of all ages. In all excepting three the pulse was reduced. Two of these had endocarditis and pericarditis. If the pulse was irregular previous to the taking of the digitaline, it became regular as the medicine took effect. In fifteen cases taken at hazard, in La Charite, the maximum pulse before the action of the digitaline was 96, after the medicine 41 pulsations less. In three cases the pulse was reduced 80, 102, and 106 beats. The minimum reduction in three other cases was 12, 14, 16. The number of the granules taken daily was from 2 to 7; the number of days on which the granules were taken usually 13 to 14. One patient took 70 granules in 18 days. Another 82 in 14 days. A third 98 granules in 20 days. A fourth 164 granules in 40 days without harm. As soon as pain in the head, vertigo, or nausea came on, the medicine was stopped.

M. Andral, also, in the *Union Medicula*, No. 52, 1851, gives his experience of the action of the granules on 19 patients, with either heart disease, albumenuria, phthisis, pleurisy or acute rheumatism. Two granules sometimes caused sickness. Usually three or four granules were taken. One patient took twelve daily. The greatest number of granules taken by different patients were 23, 33, 44, 50, 80. The action on the pulse was perceptible in the decrease of the number of beats from day to day. The following table of the reduction of the pulse in different cases is given:—

| Nature of Disease. | | Minimum of pulse before treat'mt. | Maximum of pulse during treat'mt. | Difference. |
|--------------------|-------|-----------------------------------|-----------------------------------|-------------|
| Disease of heart | - - - | 108 | 68 | 40 |
| " | - - - | 92 | 72 | 20 |
| " | - - - | 80 | 68 | 12 |
| " | - - - | 69 | 51 | 25 |
| " | - - - | 104 | 100 | 4 |
| " | - - - | 64 | 60 | 4 |
| " | - - - | 44 | 44 | 0 |
| " | - - - | 76 | 58 | 18 |
| Phthisis | - - - | 84 | 76 | 8 |
| " | - - - | 68 | 64 | 4 |
| Pleurisy | - - - | 108 | 100 | 8 |
| " | - - - | 108 | 116 | 8 |

| | | | | | |
|-------------------------|---|---|-----|----|----|
| Hydatid of Pleura | - | - | 100 | 96 | 4 |
| Rheumatism of one joint | | | 96 | 80 | 16 |
| " in several joints | - | | 96 | 80 | 16 |
| Anæmia | - | - | 80 | 76 | 4 |

The granules increase the frequency of making water from 4 to 5 times daily to 12 or 14 times. They do not always increase the quantity of urine, but sometimes they increase the quantity to two, three, or even four times the amount previously passed.

The granules act on the nervous system in different patients very differently. Sometimes, in some persons causing sleepiness and heaviness; in others, pain in the head, uneasiness, and loss of sleep.

The following account of the poisoning from taking an excess of these granules is given by Dr. Leroux in the *Union Medicale*, No. 99, p. 398.

A strong man, at 72, suffered from old pleurisy of the left side with œdema of the feet; his pulse was from 70 to 68. At 6 a. m., on the 25th of May he took many granules of digitaline; at 10 a. m. he took as many more as made up 30; at midday poisoning symptoms began; at 5 p. m. a physician was called, then there was pain in the head, imperfect sight, extreme praecordial pain with extreme restlessness. At 9 p. m. the tongue was red and dry, there was dislike of any kind of drink, sickness, pulse 45 to 50; excessive acute pain in the head; giddiness when the patient sat up so that he had to lie down immediately. There was general weakness with drowsiness and scanty urine. The following day the pulse was 54, the general symptoms were less severe. It was the 1st of June before he entirely recovered.

From these experiments and observations on the action of the granules of digitaline, it is evident that the active principle of the digitalis may be insulated and employed as a remedy, and as morphine and quinine are of more definite composition and therefore of more certain action than opium and bark, so in nearly the same degree is digitaline more definite and certain in its action than the digitalis from which it may be extracted.

I may conclude this subject by bringing to your notice some very interesting observations of Dr. Traube, of Berlin, on the reduction of the temperature of the body by the action of digitalis; the determination of the animal heat was always made in the axilla, and in twelve cases of acute rheumatism, the rate of the pulse and the temperature of the body were taken with extreme accuracy, morning and evening; half a drachm of the leaves of digitalis were infused in four ounces of water, and every two hours half an ounce of the infusion was given. The result was, that generally the temperature fell at the same time, or shortly after the digitalis produced this effect on the heart. Hence, without doubt, the re-

duction of the temperature was a consequence of the slower current of the blood which was produced by the action of the digitalis on the regulatory system of nerves of the heart.

Careful observation showed that digitalis caused a reduction of the temperature in the most different kinds of febrile complaints. Even in puerperal fever the temperature falls when the digitalis is in action.

Dr. Traube draws the following comparison between blood-letting and digitalis as antiphlogistics. Bleeding, while it lessens the force of the pulse, reduces the specific gravity of the blood and in low inflammations increases the tendency to serous effusion. Hence, in all low inflammations, digitalis is to be preferred as an antiphlogistic to bleeding. Moreover, the effect of venesection is much more rapid, and much more transitory; in its antiphlogistic action digitalis bears a close resemblance to antimony; but it is far less likely to effect the bowels, and hence, in all inflammatory diseases complicated with any affection of the bowels, digitalis is to be preferred to antimony. The employment of the digitalis is, however, accompanied by its own inconveniences and even dangers. It may produce sudden prostration of nervous and muscular action, and even syncope and death; that is, the stimulating action on the regulatory system of nerves may suddenly give place to the paralyzing action. Hence arises the necessity for watching those who are taking this medicine; they should be seen at least twice daily, and if there be sickness, or irregularity in the rhythm of the heart, or great reduction in the rate of the pulse, the medicine must be omitted.—*Virginia Med. Jour.*

MISCELLANEOUS SELECTIONS.

Local Lesions of Fever.—The most learned and celebrated physicians of France and Germany have found the principal local lesions of fever, to occur in the digestive organs. Latterly they have been almost confined to the mucous follicles of the small intestines—Pyer's glands—and names have been invented to indicate this as the peculiar anatomical characteristics of continental typhoid fever. Dr Stokes, however, says, he does not find this remarkable preponderance of lesions in the digestive organs, in Ireland, although an epidemic has prevailed there, “in which the condition of the intestines accurately represented that which is found to prevail on the continent.” The local and secondary lesions of fever, are subject to still greater variations, perhaps in this country. The French and German peculiarity has not been ascertained to be extensively prevalent, the mucous lining of the

colon and rectum being more commonly affected than that of the jejunum and ilium, giving rise to dysenteric complications; while the liver, stomach, and brain, are, perhaps, still more liable to become diseased. Of all the viscera, the only organs excused from implication are the lungs. A large and respectable class of physicians contend, that whenever pneumonic symptoms occur, the affection must always be considered as primary; and that pneumonia is not a secondary lesion of fever. Dr. Stokes is of a different opinion in reference to Irish typhus, in which pulmonary complications are common.

Quinia as a Prophylactic.—Besides the protection afforded American and English sailors, on the coast of Africa, from the fatal fevers of that region, it has been nearly proved, that quinia is the agent which will enable the civilized world to explore the hidden depths of the African continent, which have hitherto been considered almost inapproachable to the white man. Of thirty-eight men sent on the exploring expedition in 1805, under Mungo Park, only seven reached the Niger river, and finally all perished. Out of a still larger party under Captain Tuckey, in 1816, only one man returned alive. The brothers Lander, in 1832, lost forty Europeans out of forty-nine. And the better-appointed party under Capt. Buxton, in 1842 returned with forty-two men living out of one hundred and forty-two. But in 1852 the English government sent out a steamer to explore Tschadda, with sixty-six men, which ascended that river two hundred and fifty miles higher than it had been before explored, and returned without the loss of a single man. Something is due, perhaps, to the influence of the ordinary sanitary measures adopted, but we cannot suppose these to have been greatly superior to the pains-taking efforts of previous expeditions, and must attribute the unprecedented result to the influence of quinia, which we are told was used freely, both as a prophylactic and remedy.

Eczema.—Professor Bennett, of Edinburg, recommends for the local treatment of this disease, keeping the affected part moist with lint or linen, saturated with a very weak alkaloid solution, consisting of half a dram of sub-carbonate of soda to a pint of water. This should be well covered over with oil-silk, or gutta-percha sheeting, to prevent evaporation. It soon relieves the irritation which is distressing to the patient, and prevents the formation of scabs. After a while the indurated parts become softened, the margins of the eruptions lose the fiery red color, and merge into that of the healthy skin. Finally, the whole surface assumes its normal character. He attaches great importance to the close adaptation of the dressings of the diseased surface and the constant moisture. He condemns the use of citrine ointment, and all

other oily applications. Pemphigus, impetigo, ecthyma, and some other cutaneous eruptions, other than the exanthemata, are treated in a similar manner, with alkaline solutions. No doubt much of the curative effect is due to the constant exclusions of the air from the diseased surface, to which Professor Bennett does not allude.

Nitrate of Silver and Potassa.—These two salts, by being melted together and cooled in moulds, form caustic pencils of any strength, dependent upon the proportion of potassa, and are generally made with a preponderance of two or three parts of the latter salt. They are used in cauterizing the eye-lids and eyes. If the part be washed immediately after application, with a solution of common salt, the nitrates are converted into chlorides, and may be washed away with water. This caustic is used, also, in gonorrhœa, and other urethral and vaginal discharges, and in indolent and irritable ulcers. It is, of course, less expensive than common lunar caustic.

Yellow Fever.—Dr. Fenner, in the *New Orleans Medical News and Hospital Gazette*, contends, that the disease of the present season in that city is unquestionably of domestic origin; not a single case having been traced, by the remotest probability, to foreign infection. The hospital cases are brought in from different and remote parts of the city, showing no sort of communication whatever. All this can be well substantiated, and yet it is no more than has been proved a thousand times before, and it must not, therefore, be expected, that it will exert any special influence over the long disputed question of contagion and importation. The further remarks of Dr. F., which we quote below in his own words, are not less true and well established than his views above stated, and have indeed quite as important a bearing upon the mooted questions. In every city which has ever been visited by the disease, it has appeared and disappeared in precisely the way described, merging so gradually into other fevers both in its approach and decline, as to baffle the diagnostic skill of the most able and experienced physicians, no two of whom are likely to agree upon the line of demarkation between yellow, and common bilious fever; and thus proving, as far as human judgement can prove anything, that these diseases are essentially the same, differing only in degree of violence, and in the seat of the principal and most fatal local lesions. Dr. Fenner says:

“ I maintain that this disease never *bursts out suddenly* here, presenting characteristic features different from those of all other fevers, and therefore easily distinguishable by the experimental physician; but, on the contrary, that the endemic fevers (bilious, remittent and intermittent) gradually run into the yellow-fever

type, assuming its features in such a manner as to excite *suspicion*, but yet not to justify a positive diagnosis, until one or more cases have been observed to terminate in black vomit or some other hemorrhage. Hence arise the discrepancies of opinion so often displayed by physicians as to the true character of certain cases that are seen at the beginning of an outbreak of yellow fever. At this period may be seen numerous cases of bilious remittent fever, presenting more or less the aspect of yellow fever, but not in so strong a light as to remove all doubt from the diagnosis.

"As the season advances, if it is going to be a *sickly one*, the yellow-fever type will become better marked and the number of cases will increase until it predominates over all others; then, if the disease prevails to a great extent, it is called an *epidemic*. This rages for a period usually, here, of sixty or seventy days, when it declines gradually and is again merged into the ordinary types of endemic fever.

"But if the season turns out to be *not very sickly*, the yellow type will not give the ascendancy over the others, but only appear *sporadically* and to a moderate extent. On these occasions we have plenty of intermittent and remittent fever, and some called *dengue*, which approach nearest the yellow-fever type, but few cases are marked yellow fever unless they present unquestionable signs."

Preserving Ergot.—With many others of the profession, we have had difficulty in preserving the medicinal power of ergot for any length of time; and perhaps it may be for the want of such preservation, that we find so much discrepancy in the statements made of its effects. When the patient is properly prepared for its action, by those relaxations favorable to uterine contractions and delivery, we have never found the pure article fail in its parturient power. These favorable conditions may often be secured by the anaesthetic influence of chloroform or ether. We have generally taken no other precaution in the preservation of ergot, than to drop a few lumps of camphor into the bottle in which it is kept unpulverized; but Dr. Nunn, of Georgia, reports, in the American Journal of Pharmacy, a more certain and elegant method, by which the remedy can be preserved for several years. He reduces the ergot to a coarse powder by a common coffee-mill, and then carefully dries it. Then he prepares a solution of camphor in ether, eight grains to the ounce, a dram of which solution is placed in an ounce vial, which is immediately filled with the powdered ergot firmly packed, and tightly corked and sealed. The ergot is moistened throughout by the ether, which is evidence of the exclusion of air. The ether and camphor are dispelled by the heat of the water used in making an infuson for use. He has used ergot which had been preserved in this way for eight years

without perceptible deterioration, and suggests, that other substances might be preserved upon the same principle, substituting anhydrous alcohol for the ether when the latter is inadmissible. We venture to make the additional suggestion, that chloroform may, in many cases, be preferable to ether.

New Source of Alcohol.—“It is abstract, and not practical science, that is the life and soul of industry.” This maxim of the celebrated Playfair has received an illustration by the formation of alcohol from coal gas. This consists, mainly, of bicarburetted hydrogen, forming what is called olefiant gas, which constitutes its principal illuminating power. The same is the basis of alcohol, which suggested to Bertholot the idea of converting it into this substance by uniting it with water. Accordingly it has been found, that by agitating it with sulphuric acid and metallic mercury the gas is absorbed, and upon adding water, and distilling the mixture, alcohol is obtained—the true ethylic alcohol, or spirit of wine. Thus is abstract science constantly leading to great results, whether it be in the discovery of a planet at the very place indicated by the astronomer, or in the synthetical production of alcohol in the precise manner pointed out by the chemist. And these are the triumphs of science founded on education, even in its present limited sphere.

Causes of Headache.—A German author divides the exciting causes of headache into three different kinds: Those directly affecting the brain itself, those proceeding from the digestive organs, and those derived from derangement of the sexual system. He has found a difficulty, as has every one else, in determining whether headache is dependent upon relation or emptiness of the intra-cranial vessels; and resorts to dry-cupping as a means of diagnosis. When applied to the nape of the neck, it will, in the one case, afford more or less immediate relief; in the other, it will increase the pain, and produce prostration and syncope. The inference is, that in the former instance the headache will be benefitted by diminishing the contents of the vessels; in the latter by increasing their amount. These remarks are no doubt just, but it must be borne in mind that depletion in anemia, and in cases of nervous debility and exhaustion, attended by pain and giddiness, sometimes gives temporary relief, although it must do ultimate injury. Therefore time must be allowed to determine the point. Quite as effectual means of diagnosis in these cases are found in stimulation, the beneficial and injurious effects of which are more prompt and decided. If a headache be relieved by brandy, by eating, or other means of excitation, an immediate inference may be drawn from it; and if it be increased by such experiments, the diagnosis is equally easy and certain.—*Memphis Med. Recorder.*

BOOK NOTICES.

American Journal of Pharmacy. Published by Authority of the Philadelphia College of Pharmacy. Edited by WM. PROCTOR, Jr., &c., &c.; Bi-monthly, at \$3,00 per annum in advance.

THE September number of this valuable periodical is well filled with interesting matter. It deserves the patronage both of physicians and druggists.

The Half-Yearly Abstract of the Medical Sciences : being a practical and Analytical Digest of the contents of the principal British, American, and Continental Medical works, published during the preceding six-months ; together with a series of critical reports on the progress of Medicine and the Collateral Sciences during the same period. Edited by W. H. RANKING, M. D., & C. B. RADCLIFFE, M. D., of London : Published by LIDNSAY, & BLAKISTON, Philadelphia.

THOSE who wish for a selection of matter from the principal medical periodicals of Europe and America, once in six months, can find it in the above named work. Each number contains about 300 pages, and it is published at \$2,00 per annum.

Transactions of the Medical Association of Southern Central New York; at the Ninth Annual meeting, held in Elmira, June 5th, 1855.

THIS is a neatly printed pamphlet of 124 pages, containing the proceedings of the above named Society, interesting reports from several committees, and the annual address of the President, Dr. S. H. French, of Lisle, Broome county, N. Y.

The several papers show a very laudable degree of industry on the part of the members of the Society. We wish, however, that we could see in the Transactions of this and other similar societies more of the results of a well devised system of original experimental researches.

Our medical societies are occupied too much with the mere gathering up of simple isolated cases or disjointed facts. We

think more attention should be given to the selection, and investigation of specific questions of interest,—questions, which should lead to investigations calculated to throw additional light on points hitherto obscure and undetermined. It is of but little moment to multiply the records of individual cases of diseases, for instance, unless they present some features calculated to illustrate an unsettled question either in pathology or practice.

Braithwaite's Retrospect of Practical Medicine and Surgery ; being a half-yearly journal, containing a retrospective view of every discovery and practical improvement in the Medical Sciences. Edited by W. BRAITHWAITE, Lecturer on Obstetric Medicine, &c. : Part. 31, July, 1855. American edition, Published by STRINGER & TOWNSEND, 222 Broadway, N. Y., at \$2,00 per annum or \$1,00 per each number.

THIS, like Ranking's Abstract, furnishes the reader in a cheap form, a very useful summary of the more important matters published in the medical periodical literature of Europe. Each number contains little more than 300 closely printed pages.

Discovery of the Cause, Nature, Cure, and Prevention of Epidemic Cholera. By L. M. KNAPP, M. D., late Professor, &c. Published by H. W. DERBY : Cincinnati, 1855.

THIS is the imposing title to a pamphlet or monograph of 48 pages; notices of which we had seen in several of the newspapers and periodicals of the day. These notices with the letters of different persons on the cover, induced us to read the essay at once. All there is essential in its doctrines may be stated in very few words.

The author's discovery consists in the naked declaration that cholera is only a modification of *scurvy*, and arises from a deficient supply and use of *succulent* vegetables. This is the sum total of his discovery of the *nature* and *cause* of the disease. The prevention and cure is of course obvious, viz. : to make free use of such succulent vegetables as are known to prevent and cure *scurvy*.

It is sufficient to say that the positions of the author are not sus-

tained by any collection of carefully observed facts, statistical or otherwise; but on the contrary are made to rest on a series of the most inaccurate, and we might say reckless, general statements that we have ever seen in print. As a specimen of the mode of writing we give the following, viz.: "The reasons drawn from observation, for believing cholera to be of *scorbutic* character, are as follows, to wit: 1st. The coincidences of cold winters and retarded springs preceding the outbreaks. It is a matter of history that the winter of 1831-2 was one of the coldest ever known."

"Again, the winter of 1848-49 was a remarkably cold winter all over the United States, the spring of '49 greatly retarded, and all degrees of the scorbutic diathesis were observed at the bedside by the writer of this, who had for years been an observer of its stealthful, annual appearance. The universal spread of Cholera in the cities of the United States, in the summer of 1849, is well remembered, and its continuance until the coming in and use of the new crops of vegetables and fruits. Their free use, however, during the prevalence of Cholera, has never been known or tolerated. They have rotted in the field rather. It has been held fool-hardy or tempting Providence to eat them.

Casting a glance across the Atlantic, the years 1846-47 were years of dearth, scarcity and blight in Europe, particularly of the potatoe, the most valuable anti-scorbutic vegetable known; and the scurvy and Cholera together followed, scourging the nations generally. Writers in describing the spread of Cholera in Europe in 1847, say, substantially, that it started from India, again, early in that year, passed through the cities of Persia, and thence along the shores of the Caspian, reached Astracan in July, and appeared at Moscow, faint and weary, in the fall, where it took a refreshing sleep through the winter, but woke up in June, 1848, much refreshed and invigorated, and pursued its travels *via* St. Petersburg, Berlin, Hamburg, etc., to Edinburg and London, where it arrived in November *en route* for Paris. It is worthy of remark, that it struck England again, in her weakest and most scorbutic point, her Newcastle coal mines, and foul holds of her coal vessels; and that, prior to its reaching France, the *cause* of it set sail from Havre for America, in two emigrant ships that sailed in October and November. In the October ship it broke out when sixteen days at sea; and the emigrants were landed at Quarantine, in New York, in November, and the disease spread through the Quarantine Hospital, where the sickly, scorbutic inmates were kept on a routine dietary, and whose cup of affliction was made to run over through panic and an increased accumula-

tion of foul air; and a few cases occurred among the emigrants that went to the 'Five Points,' in the city of New York, where, however, it could make no progress, because of the abundance of fall fruits and vegetables; so it again slept through the winter, the intensely cold winter that followed. In the other ship it broke out when twenty-six days at sea, the *cause* in the emigrants having been more subdued before embarkation, by autumnal fruits and vegetables, than in those of the other ship, which sailed a month earlier; and the passengers were landed at New Orleans in December, where the disease spread among emigrants and the poor, the weather, for the season of the year, being hot, and a further reason, potatoes in the south scarce; and it continually appeared on the Mississippi in steamboats, among the emigrant passengers, all winter, and in the emigrant towns as high up as St. Louis and Cincinnati, and established itself gradually in the ports further and further north, as potatoes and succulent vegetable stores failed, and warm, debilitating spring weather came on.

Applying the same theory, the want of succulent vegetable food, to the rather general prevalence of Cholera in the cities of the United States this season, 1854, a rather intense causation is found, of general application, in the extravagantly high prices of provisions during the present year, high prices not only betokening scarcity, but being the same in effect to the poor. I notice the fact in the public prints, that scurvy and Cholera were both found raging simultaneously in the Poor-house at Buffalo this summer.

Thus the coincidences of cold winters and retarded springs, preceding the outbreaks of Cholera in the United States, its vernal appearance, solstitial ragings, autumnal recessions and wintry slumbers, together with its uniform and close communion with scurvy, prove that it is produced and governed by the laws that produce and govern scurvy."

In reference to the correctness of the statement in regard to the *coldness* of the winter of 1831-2, and the alledged scarcity of vegetable food during the succeeding spring, we have not taken the trouble to inquire; but in the remainder of the quotation there are not less than three direct misstatements of facts, besides a self contradiction. In the first place the winter of 1848-49 instead of being "remarkable cold," was actually milder and shorter than the average of winters in the Atlantic States. We were then residing in New York city, and remember very well that we had no cold weather until the first of January. But during all the months of November and December, while the Cholera was pre-

vailing in the Quarantine of New York and in the city of New Orleans, the weather was unusually warm and wet. Again, during these months there were *no* cases of Cholera "among the emigrants that went to the 'Five Points' in the city of New York; nor indeed is there any evidence that a single emigrant went to that section of the city. The first cases that were known to exist on the 'Five Points,' did not occur until the following May, 1849, when no profusion of succulent vegetables arrested its prevalence until the next autumn.

Again, the winter that preceded the summer of 1854, was as mild and pleasant as any that we have experienced during a residence of six years in Chicago. Neither was the spring of 1854 retarded or backward, for we had a week of quite warm and summer-like weather before the end of April; and there was certainly no lack of vegetables in Chicago during either of the years 1853 or 54. Yet in the latter summer we had one of the severest scourges of cholera that our goodly city was ever afflicted with. The following winter, however, (that of 1854-55) was extraordinarily cold and protracted; the quantity of snow beyond all former precedent; and the prices of both fuel and provisions in this city, fully double that of ordinary seasons. The spring, too, was remarkably cold and backward. And yet during all the summer following the cholera has scarcely been heard of among us. But we are wasting time on this pamphlet. It is the best specimen of that class of productions, where the writer *assumes* a theory and then states his pretended facts in such a way as to correspond without any regard to accuracy, that we have met with.

EDITORIAL.

Camman's Stethoscope.—The inquiries of a correspondent remind us of a duty which should have been performed several months since. About one year since a neatly constructed Stethoscope, invented by Dr. Camman of New York, and made by Tieman & Co. of the same city, was presented to the profession as an instrument much superior to those previously in use. We

immediately procured one and have used it daily up to the present time.

It consists of two metallic and flexible tubes terminating in a funnel shaped ivory tube of large size, which is the part to be applied to the chest. The ends of the metallic tubes are terminated with ivory knobs of such size as to fit the opening of the external ear. The advantages which it possesses over most other Stethoscopes, are, first the more full and perfect transmission of sound, and second the greater ease of adjustment. It being connected with both ears at the same time, more fully and plainly transmits the sounds to which you are listening, than any of those instruments which connect only with one ear of the operator.

The ease of adjustment arises from the fact, that the end to be applied to the chest is directly before the face of the operator and can be guided continually by the eye as well as the hand. Without entering further into details, we would say to our readers that the instrument is a very valuable one; and after using it long enough to become perfectly familiar with its qualities, we would not willingly part with it. It transmits the sounds, however, so differently from the old instrument, that it requires some practice to appreciate them correctly. This practice should be had first on the healthy chest. The instrument can be obtained of J. H. Reed & Co., Druggists of this city. Price \$7.00.

Tilden & Co.'s Extracts.—With the present number of the *Journal* will be found the circular of Tilden & Co. So far as we have had an opportunity to test the quality of their Extracts, we should think them as good and pure as any in the market; and consequently as worthy of the patronage of the profession.

Rush Medical College.—The prospects of this Institution were never so flattering as at present. The new college building is just completed, and affords all the accommodations desired. The room for practical anatomy or dissections, is particularly capacious and pleasant. The time for opening this department

and for commencing Clinical Instruction in the Hospital is fixed for the 1st Tuesday in October. There are already several students from a distance [in attendance, visiting the wards of the Hospital daily and, waiting for the day appointed to commence the study of practical anatomy. In addition to the dissections and clinical instruction, two lectures a day on topics not fully embraced in the regular college term, will be given by the Faculty during the month of October; thus making the period of instruction in the college full five months to all who choose to attend.

We expect a full class, and trust that it will be both a pleasant and profitable winter to them.

“Why is Norfolk Sickly?”—All our readers have doubtless heard of the unprecedented ravages of the Yellow Fever during the latter part of the summer in Norfolk and Portsmouth, Va. They will be glad to know that the disease has now nearly ceased its ravages for this season. The following answer to the question which constitutes our caption, we copy from the Boston *Medical and Surgical Journal*:

“Under the above head, we notice, in a number of the N.Y. *Daily Tribune*, an article descriptive of the locality of this ill-fated city, which justifies the words with which this article commences, —“A more reasonable question to ask would be, why is it ever healthy?” The following extract gives an idea of the situation of Norfolk and Portsmouth.

“The two towns are situated on an arm of the sea projecting far inland from Chesapeake Bay. * * * * All the adjacent lands have so recently emerged from the sea, that the mud and malaria-generating matter have not yet undergone the change necessary to make it healthy for the abode of men. * * * * The Dismal Swamp, one of the largest, deepest and most impenetrable in the United States, almost touches the suburbs of Portsmouth, lying on the south side of one of the little arms of the bay; while Norfolk is situated opposite, on the north, surrounded on three sides with stagnant water; immediately in contact with the houses, and all around, for twenty miles or more, the land is almost flat and but slightly elevated above the sea level.”

This description is confirmed by a resident for the past two years in Norfolk, who informs us that the city is destitute of sewerage, and that its streets are extremely filthy, being often

strewed with refuse vegetables and other garbage, which result from the immense quantity of provisions brought into the city, for export. These matters become rotten, and emit a most noisome stench. The turkey-buzzard, the natural scavenger of the South, is not found in Norfolk, but his place is supplied by cows, who wander at will through the town, and gather an unhealthy subsistence from the cabbage stalks and other substances which lie in heaps on the ground. The condition of Portsmouth is much worse than that of Norfolk. It is connected with Gosport by a causeway, nearly a mile in length, if we are not mistaken, across a swamp or flats, from which arises a powerful stench.

These facts are sufficient to account for the extraordinary spread of the yellow fever, after its first introduction, and we trust they will be so far appreciated by the local authorities as to lead to the institution of sanitary improvements as soon as the subsidence of the epidemic shall allow the necessary measures to be taken. It may not be possible to prevent the disease from re-appearing, but cleanliness and drainage will go far towards restraining the scourge within comparatively moderate limits. In the meantime, let us hope that the lesson may not be lost upon other places in a similar hygienic condition,—that the apathy which exists so extensively on this important subject may be exchanged for an enlightened wisdom in sanitary reform,—that the maxim, “cleanliness is next to godliness,” may become a proverb throughout our land.

Medical Education.—We are glad to see in our exchanges an increasing disposition to discuss this important topic. That the system of Medical Education commonly adopted in this country is very incomplete; or more properly defective in many important particulars, is evident to all who have devoted proper attention to the subject. Those who anticipated a rapid removal of all these defects, through the instrumentality of the American Medical Association, have been disappointed, and a few of them ready to characterize the Association itself a failure on this account. The latter, however, but poorly appreciated, either the obstacles to be overcome or the time required for their removal. To point out effects is generally an easy task.

To devise and execute appropriate remedies, especially where the interests of many are concerned, is a task far more difficult





and perplexing. It is a common remark that all real reforms or advances which affect important interests move slowly; and the history of Medical Education in this country certainly does not militate against the truth of the maxim. Yet there is progress. And the influence of the National organization is being felt throughout the whole country. The absence of the chairmen of the committees on Medical Education from the two last meetings of the Association, and the consequent absence of any report on the subject, caused those meetings to pass by with less discussion than on former occasions.

But members did not, on that account feel less interest in the general subject. The most important action taken at the last meeting, in reference to it, was the appointment of a special committee to report at the next meeting, on the following resolutions offered by Dr. A. Stille, of Philadelphia, *viz.* :

"Resolved, That a special committee of five be appointed to report at the next meeting of the Association on the following question: Might not the present system of repeating the same Lectures to the same classes, during two successive terms, be usefully modified by extending the Lectures of each class over two sessions, so as to embrace a systematic and complete discussion of each of the following subjects:

- 1st. Special Regional, and General Anatomy, including illustrative references to Morbid Anatomy.
- 2d. Inorganic, Organic, Pharmaceutical Chemistry, and Toxicology.
- 3d. General and Human Physiology, Hygiene, Medical Jurisprudence.
- 4th. Medical Botany, Materia Medica, General Therapeutics.
- 5th. General Pathology, Morbid Anatomy, (systematic) Practice of Medicine.
- 6th. General Surgical Pathology or Institutes of Surgery, Mechanical, Operative, and Medical Surgery.
- 7th. Obstetrics, Diseases of Women, and Diseases of Children.
- 8th. Hospital Clinical Medicine and Surgery.

Resolved, That the committee, at *an early day*, address the several Medical Colleges, in regard to the proposed plan of instruc-

tion, requesting from them an official expression of opinion upon its merits and feasibility."

The following gentlemen constitute the committee as appointed by the President of the Association, viz.: Drs. A. Stilli, Samuel Jackson, and John Bell, of Philadelphia, John Watson, of New York, and J. L. Cabell, of Va.

These are names well known to the profession, and we shall expect a most able and interesting report on the subject at the next meeting.

The leading idea embraced in the proposition, is, that the Lecture term in our colleges is too short to permit the several professors to present a full and complete course of Lectures on all the topics that should be embraced in their several departments. But instead of lengthening each term, it is proposed to make each course of Lectures extend over two consecutive college sessions. The idea here advanced is undoubtedly correct. A college term of four or five months is certainly too short to present a full course of instruction on all the important branches of medical science. But the remedy proposed is liable to very serious if not fatal objections. In the first place, the extension of each course of Lectures over two successive annual college terms, would render it necessary that the same class of students should always attend the same college two successive years, and that new students could only be consistently admitted at the commencement of each alternate year or college term. This, to say the least, would be a very great inconvenience. But another and even stronger objection is, that the proposed remedy or change, does not in the least obviate one of the most serious evils connected with our present system of medical instruction, namely, the crowding upon the mind of the student a large number of lectures each day, and simultaneously on topics the most elementary and the most complex and practical. Students who have studied medicine only a few weeks and those who have studied two and three years are required to listen to the same lectures; and the professors of practical medicine and surgery, are often lecturing on the details of practice in their respective departments before those of Physiology, Anatomy, and *Materia Medica* have passed over the first elementary principles

of our science. Dr. Stilli's proposition which seems to contemplate the giving of the same number of lectures by the same number of professors each term, only extending the course of each so as to reach through two terms, does not remedy in any degree this greatest of all the defects in our present system of medical college instruction. Simply lengthening the college term, or lengthening each course of lectures so as to embrace two terms, will not meet the wants of the profession or remedy the defects of the present system. But if we double the length of the present annual college session, and then divide it into *two terms*; so that the elementary branches can be taught or lectured on during one of the terms, and the practical branches during the other; then students in the early part of their studies could attend the term during which lectures were given on branches appropriate to the period of their study only the first year, and the term suited to their further progress the next year. By such an extension and division of the annual college session, the number of chairs could be increased, the whole field of medical science more perfectly included; while a smaller number of lectures would be given daily, and what is more than all, the student could receive his instruction on the several branches in their natural order or succession, instead of having them all crowded upon the mind heterogeneously. If all our medical colleges would confer together and adopt such a plan, and the profession at large throughout its social organization also adopt some systematic plan for ensuring the attainment of a proper preliminary education, on the part of all young men, before they are permitted to enroll themselves as students of Medicine with any respectable practitioner; it would soon result in a vast improvement in the education and usefulness of the whole profession in this country.

To Subscribers.—The delay in mailing of the last (September) number of the *Journal*, was occasioned by the necessity of enclosing *bills* to those subscribers who stand in arrears on our books. To fill out and enclose nearly *one thousand bills*, is a task requiring both time and patience; and we had hoped that we should be

relieved from the task by the prompt payment of subscriptions by our readers—but we have been disappointed to a very great extent. It requires only two more numbers to complete the volume and the subscription year. Will our subscribers act promptly? They need have no fears of sending through the Post-Office, if they will be particular to address their letters to N. S. DAVIS, Chicago, Illinois.

Toast.—The following poetical toast, by Dr. Oliver Wendell Holmes, was prepared in the expectation that there would be a public dinner at the late meeting of the American Medical Association, and with the intention that it should be offered on that occasion:—

A triple health to Friendship, Science, Art,
From heads and hands that own a common heart !
Each in its turn the other's willing slave :
Each in its season strong to heal and save.

Friendship's blind service, in the hour of need,
Wipes the pale face—and lets the victim bleed.
Science must stop to reason and explain :
Art claps his fingers on the streaming vein.

But Art's brief memory fails the hand at last ;
Then Science lifts the flambeau of the past.
When both their equal impotence deplore—
When Learning sighs, and Skill can do no more,
The tear of Friendship pours its heavenly balm,
And soothes the pang no anodyne may calm !

Injections into the Bronchial Tubes and into Tubercular Cavities, of Solution of Nitrate of Silver.—Dr. Horace Green presented to the New York Academy of Medicine, in December last a communication in which he claimed to have treated bronchial affections and tuberculosis with advantage, by the direct introduction into the lungs of a strong solution of nitrate of silver, injected through an elastic tube. The subject was referred to a committee, to investigate and report on the subject.

At the meeting of the Academy, on Wednesday, June 6th, Dr. Willard Parker, the eminent Professor of Surgery in the College of Physicians and Surgeons, who was chairman of the committee, made a report on behalf of a majority of that committee. We

take the following summary of the report from the *New York Daily Times* of June 11th.

Dr. Parker stated that the Committee had held five meetings—two at the office of Dr. Green, three at Bellevue Hospital, and had experimented upon thirty-eight individuals, and would now present, 1. A History of catheterism of the air passages; 2. The results of their experiments; and 3. The opinions founded upon these experiments.

1. Catheterization of the air passage is no new idea: it is recommended by Hippocrates; and Ryland, in his work on *Diseases of the Larynx*, devotes a short chapter to it.

2. The result of their experimentation proved, to the satisfaction of the whole Committee, that the operation is possible. In eleven cases the instrument entered without doubt into the trachea. This was evident to the finger of the operator by local examination. Moreover the symptoms manifested by the patient are unequivocal. They are such as always accompany the entrance and the presence of a foreign body in the air passage, spasm, suffusion of eyes, redness of face, a sense of suffocation, and a desire to withdraw the instrument.

In most instances the instrument passed into the œsophagus, and the report next gave a tabular statement of unequivocal rational signs by which it might be determined into which passage the instrument was passed. [This tabular statement is very incomplete.]

When the instrument is passed into the trachea, the face becomes turgid, respiration croupy, there is spasmody cough, and a sense of immediate impending suffocation. If assured that there is no danger (in one instance seen), the patient can be enabled to bear the instrument for a short period.

When the instrument enters the œsophagus there is a hoarse, stridulous voice, retching, and cough, generally vomiting; but after a short interval these symptoms pass away: the irritation is allayed, and the voice becomes nearly natural. In but one case were these peculiarities absent, and in that sensibility of the parts was deadened by previous syphilitic disease.

As a rule the rational signs will distinguish the location of the instrument. The blowing out of the candle by expiration through the tube, and the inflation of a bladder tied over the end, are not sound tests, as this might be done by the emission of gas from the stomach, when the tube was purposely passed into the œsophagus.

The opinion of the operator is unreliable when based upon his own opinion, without reference to these rational signs. Dr. Green being himself repeatedly mistaken, as confessed by him.

The sensations of patients are often reliable after many applications have taught the different feelings.

The facility of the operation does not depend upon the previous preparation of the patient, as insisted on by Dr. Green; for, with the exception of Wetmore, patients who had frequent applications of the caustic to the fauces for six months were equally intolerant as the new patients.

Much depends upon the character and form of the instruments. With a tube curved by a stylet to a form corresponding to a circle of six inches diameter, in thirteen cases five failed, or 38 per cent. of failure, which proves that the trachea may be entered with a very considerable certainty.

With a tube with a small curve, such as used by Dr. Green, in 38 cases 35 failed or 92 per cent. of failure.

With a sponge probang, in 18 cases there were 18 failures, or 100 per cent. of failure.

The conclusion is, that the sponge probang, or slightly curved tube, cannot be made to enter the trachea, if largely curved, can; that local application within the trachea is difficult, and rarely successful; and whether an instrument may be passed at will into the right or left bronchi, the committee leave to the Academy to decide from these facts.

The committee considered themselves excused from entering into the therapeutical value of the application, as proposed on the grounds that they do not think it advisable to discuss a mere theoretical question. A post-mortem of a consumptive is given, where death followed in twenty-six hours after operation.

This report was signed by Dr. Parker, I. Wood, and H. O. Stone. Dr. A. H. Stevens is absent from the city, and two other members reported to concur in it, but they were absent and their names were not appended.

Prof. Baker, the colleague of Dr. Green in the New York Medical College, made a minority report, stating the reason why he could not sign the majority report.

At an adjourned meeting of the academy, on the following Wednesday, the reports were again read, and after some debate the reports and the paper of Dr. Green were ordered to the committee on publication, to be printed in the *Transactions* of the Academy, and distributed to the members previous to the next meeting.

The Society then adjourned to the next regular meeting on the second Wednesday in July.—*Medical News.*

STARLING MEDICAL COLLEGE.

SESSION OF 1855-56.

LECTURES—The Lectures will commence on Wednesday, the 18th of October, and continue for twenty weeks, ending Tuesday, the 6th of March.

FACULTY.

S. M. Smith, M.D., Prof. of Theory and Practice, and Dean.

F. Carter, M.D., Prof. of Obstetrics and Diseases of Women and Children.

E. Moore, M.D., Professor of Surgery.

John Dawson, M.D., Prof. of General and Special Anatomy and Physiology.

J. W. Hamilton, M.D., Prof. of Materia Medica, Therapeutics and Medical Jurisprudence.

Theo. G. Wormley, M.D., Prof. of Chemistry.

S. Loving, M.D., Demonstrator of Anatomy.

FEES.—Tickets for all the Professors, \$60.00; Matriculation Ticket, \$3.00; Graduation Fee, \$20.00; Ticket for the privileges of the Dissecting Room, including the services of the Demonstrator, \$5.00.

Subjects for discussion in the building furnished at a moderate expense, on application to the Demonstrator of Anatomy AND IN NO OTHER WAY.

Inquiries and requests being sometimes made for indulgence in time, we propose to allow, in such cases, that a judgment note for \$65, with interest and approved security, payable in one year, may be taken. But our rule is, payment within the first three weeks of the session.

EXPENSES FOR A SINGLE SESSION.

Fees, including the Dissecting Ticket, \$68; Boarding, including lights and fuel, from \$2 to \$3 per week, for twenty weeks, \$40 to \$60.—

Total \$108 to \$128 00

There are three extensive Bookstores in Columbus, at which Medical works in great variety are sold at very low rates. Surgical, Obstetrical, and Dissecting Instruments are readily obtained.

S. M. SMITH, M. D., Dean.

Columbus, Ohio, Sept., 1855.

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MEDICAL COLLEGE OF OHIO.

SESSION OF 1855-56.

THE THIRTY-SIXTH ANNUAL COURSE OF LECTURES in this Institution, will commence on the 15th day of October, and continue until the last day of February.

FACULTY.—Thos. Wood, M.D., Prof. of Anatomy; J. A. Warner, M.D., Prof. of Chemistry and Toxicology; James Graham, M.D., Prof. of Materia Medica and Therapeutics; G. C. Blackman, M.D., Prof. of the Principles and Practice of Surgery and Clinical Surgery; John H. Tate, M.D., Prof. of Physiology, Hygiene and Medical Jurisprudence; N. T. Marshall, M.D., Prof. of Obstetrics and Diseases of Women and Children; S. G. Armor, M.D., Professor of Pathology and Practice of Medicine and Clinical Medicine; R. L. Rea, M.D., Demonstrator of Anatomy.

FEE for the Whole Course, \$92; Matriculation (paid only once) \$5; Hospital, \$5; Graduation, \$25; Demonstrator's Ticket, \$8; Board, \$2.50 to \$3.00 a week.

A Preliminary course free to all students, will commence on the 1st of October and continue until the commencement of the regular session.

Clinical Instruction by the Professors of Clinical Medicine and Surgery, will be given daily at the Commercial Hospital.

A Medical and Surgical Clinique has also been established in connection with the College, at which cases will be prescribed for, and operations performed, in presence of the Class.

Students may rely upon an abundant and prompt supply of MATERIAL.

Letters addressed to the Dean, or any member of the Faculty will be promptly answered.

Students on arriving in the city, can obtain further information by calling on the Dean or Janitor at the College, on 6th street, between Race and Vine.

S. G. ARMOR, M.D., Dean of the Faculty.

THOS. WOOD, M.D., Registrar.

PHILADELPHIA COLLEGE OF MEDICINE.

THE Winter Session will begin on Monday, October 8, 1855.

The Spring Session will open in March, 1856, and close in July.

Degrees are conferred in March and July.

FACULTY.

George Hewston, M.D., Prof. of Anatomy.

H. Howard Rand, M.D., Professor of Chemistry.

H. Hartshorne, M.D., Prof. of Institutes of Medicine.

James L. Tyson, M.D., Prof. of Materia Medica.

Isaac A. Pennypacker, M.D., Prof. of Practice of Medicine.

James Bryan, M.D., Prof. of Surgery.

Lewis D. Harlow, M.D., Professor of Midwifery, etc.

Joseph Parrish, M.D., Emeritus Prof. of Midwifery, etc.

FEES.—One Full Course, \$84; Perpetual Ticket, \$150; Matriculation, \$5; Graduation, \$30.

The students are examined daily by the Professors upon each branch. Advanced students are furnished gratuitously with the hospital ticket for one year, and have opportunities of attending cases in Medicine, Surgery and Midwifery, under care of the Professors.

For announcement or other information, address

B. HOWARD RAND, M.D., Dean,
At the College, 3d st., below Walnut.